



ENVIRONMENTAL PROTECTION AGENCY

[EPA-HQ-OAR-2020-0599; FRL-8194-02-OAR]

Notice of Final Approval for an Alternative Means of Emission Limitation

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice; final approval.

SUMMARY: This action announces the Environmental Protection Agency (EPA) approval of the request by Rohm and Haas Chemicals LLC, a subsidiary of The Rohm and Haas Chemical Company (Rohm and Haas), under the Clean Air Act (CAA) for an alternative means of emission limitation (AMEL) for the Standards of Performance for Volatile Organic Liquid Storage Vessels. The AMEL applies to a proposed new vinyl acetate bulk storage tank to be used at its chemical plant in Kankakee, Illinois. The EPA received no adverse comments on the request. This approval document specifies the operating conditions and monitoring, recordkeeping, and reporting requirements that this facility must follow to demonstrate compliance with the approved AMEL.

DATES: The approval of the AMEL request from Rohm and Haas to operate its storage tank in Kankakee, Illinois, as specified in this document, is effective on **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2020-0599. All documents in the docket are listed on the <https://www.regulations.gov/> website. Although listed, some information is not publicly available, *e.g.*, Confidential Business Information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through <https://www.regulations.gov/>.

Out of an abundance of caution for members of the public and our staff, the EPA Docket Center and Reading Room are closed to the public, with limited exceptions, to reduce the risk of transmitting COVID-19. Our Docket Center staff will continue to provide remote customer service via email, phone, and webform. For further information and updates on EPA Docket Center services, please visit us online at <https://www.epa.gov/dockets>. The EPA continues to carefully and continuously monitor information from the Center for Disease Control, local area health departments, and our Federal partners so that we can respond rapidly as conditions change regarding COVID-19.

FOR FURTHER INFORMATION CONTACT: For questions about this final action, contact Ms. Angie Carey, Sector Policies and Programs Division (E143-01), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-2187; fax number: (919) 541-0516; and email address: carey.angela@epa.gov.

SUPPLEMENTARY INFORMATION: *Preamble acronyms and abbreviations.* We use multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, the EPA defines the following terms and acronyms here:

AMEL	alternative means of emission limitation
CAA	Clean Air Act
CFR	Code of Federal Regulations
EPA	Environmental Protection Agency
HAP	hazardous air pollutant(s)
NESHAP	national emission standards for hazardous air pollutants
NSPS	new source performance standards
OAQPS	Office of Air Quality Planning and Standards
PRD	pressure relief device
PRV	pressure relief valve
VAM	vinyl acetate monomer
VOC	volatile organic compound(s)

Organization of this document. The information in this document is organized as follows:

- I. Background
- II. Summary of Public Comments on the AMEL Request
- III. AMEL for the Storage Tank

I. Background

On February 8, 2021, the EPA provided public notice and solicited comment on the request under section 111(h)(3) of the CAA by Rohm and Haas for an alternative means of emission limitation (AMEL) for the Standards of Performance for Volatile Organic Liquid Storage Vessels, 40 CFR part 60 subpart Kb, 40 CFR 60.112b, that would apply to a proposed new vinyl acetate bulk storage tank to be used at its chemical plant in Kankakee, Illinois (see 86 FR 8618). The volatile organic compound (VOC) standards at 40 CFR 60.112b were established as work practice standards pursuant to CAA section 111(h)(1). For standards established according to that provision, CAA section 111(h)(3) allows the EPA to permit the use of an AMEL by a source if, after notice and opportunity for public hearing, it is established to the Administrator's satisfaction that such AMEL will achieve emissions reductions at least equivalent to the reductions required under the applicable CAA section 111(h)(1) standards. NSPS subpart Kb also includes specific regulatory provisions (*i.e.*, 40 CFR 114b) allowing sources to request an AMEL for the VOC standards at 40 CFR 60.112b.

In the initial notice, the EPA solicited comment on all aspects of the AMEL request, including the operating conditions specified in that document that are necessary to achieve a reduction in emissions of volatile organic compounds at least equivalent to the reductions required by 40 CFR 60.112b. Rohm and Haas intends to replace the existing vinyl acetate monomer (VAM) (CAS 108-05-4) tank (TK-72) with the proposed bulk storage tank.

Rohm and Haas included in its AMEL application information to demonstrate that the proposed bulk storage tank, through its vapor balancing system and pressure containment design, will achieve a reduction in emissions at least equivalent to the reduction in emissions achieved by the VOC standards at 40 CFR 60.112b. Rohm and Haas's AMEL request was submitted on June 17, 2020. For Rohm and Haas's AMEL request, including any supporting materials Rohm and Haas submitted, see Docket ID No. EPA-HQ-OAR-2020-0599.

This action finalizes our approval of this AMEL request. Section II summarizes the comments received on the request and our responses thereto. Section III sets forth the final operating conditions EPA has established for the proposed bulk storage tank as part of this AMEL approval.

II. Summary of Public Comments on the AMEL Request

The Agency received comments from only one commenter (Rohm and Haas) on this action. The comments pertain to the operating conditions for assuring equivalency that were specified section III of the initial notice. The comments and our response thereto are summarized below.

A. Comment on Paragraph (3) - EPA Method 21 Monitoring Requirements

Paragraph 3 of the operating conditions in the initial notice stated that at the Rohm and Haas facility, each of the PRDs and components of the vapor collection system on the tank must be monitored on a quarterly basis, using EPA Method 21, and that an instrument reading of 500 parts-per-million by volume or greater is an excess emission event.

Rohm and Haas requests that EPA classify an instrument reading of ≥ 500 ppmv as a leak instead of an excess emission event, thereby following the National Emission Standards for Organic Hazardous Air Pollutants (NESHAP) from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater, 40 CFR part 63, subpart G. As mentioned in the initial notice, in support of its AMEL request, Rohm and Haas stated that the proposed tank would comply with the vapor balancing requirements in NESHAP subpart G, 40 CFR 63.119(g) to confirm proper vapor balancing. See 86 FR 8618 (February 8, 2021). 40 CFR 63.119(g)(5) identifies an instrument reading of ≥ 500 ppmv as a leak, which triggers a requirement to repair as soon as practicable but no later than 5 days after detection. Rohm and Haas states in its comment that this change would be consistent with 40 CFR 63.119(g).

The Agency declines to adopt this suggested revision for the following reason. The EPA equivalency determination is based on the closed vent system being closed and not leaking under any circumstances. To ensure equivalency, the Agency is requiring that no detectable emissions occur from PRDs and components of the vapor collection system on the tank; accordingly, any leak would be an excess emission. Therefore, the EPA has not made the change requested by the commenter.

B. Comment on Paragraph (4) – Clarification on Welded Steel Piping

Rohm and Haas's second comment requests clarification on paragraph 4 of the operating conditions in the initial document, specifically the requirement that "VAM must be transferred from either railcars or truck trailers via welded steel piping into the new bulk storage tank. The tank must be equipped with a welded steel vapor balance line that returns displaced vinyl acetate vapors from the headspace within the tank to the railcar or tank truck during tank filling operations."

Rohm and Haas states that they intend for the piping to be welded steel piping but notes that there will be a minimal number of necessary flanged connections, flanged valves, and flexible coupling lines for the unloading line and for the vapor balance line. The Agency does not believe, and Rohm and Haas do not claim, that the operating conditions in paragraph 4 cannot be met or otherwise need to be changed because of the presence of these flanged connections, flanged valves, and flexible coupling lines. The EPA is therefore finalizing the requirements in paragraph 4 as specified in the initial notice, and we are adding a statement in the paragraph acknowledging that "there will be a number of necessary flanged connections, flanged valves, and flexible coupling lines as part of the vapor balance line."

C. Comment on Paragraph (6) – Recordkeeping Requirements

Rohm and Haas's next comment is on paragraph 6 of the operating conditions in the initial notice, which states that, "The facility must keep a record of the equipment to be used and the procedures to be followed when reloading the railcar, tank truck, or barge and displacing

vapors the storage tank from which the liquid originates, as well as a record of all components of the PRDs, including PRVs and rupture discs.”

Rohm and Haas’s comment identifies certain inaccuracies in paragraph 6 in the initial notice. For example, the statement incorrectly uses the term “reloading” in describing the operation of *unloading* vinyl acetate from a railcar or tank truck. Rohm and Haas also suggest removing the reference to a barge because it is not possible to unload a barge at this facility. In light of the above, we accept Rohm and Haas’s suggestion to revise the statement to read as follows: “The facility must keep a record of the equipment to be used and the procedures to be followed when unloading the railcar or tank truck and displacing vapors from the storage tank to the transport vessel from which the liquid originates, as well as a record of all components of the PRDs, including PRVs and rupture discs.”

C. Comments on Paragraph (7) – Reporting Requirements

Rohm and Haas suggest, and the Agency accepts, minor wording changes to paragraph 7(a) of the operating conditions in the initial notice.

Rohm and Haas also suggests several edits to paragraph 7(b), which requires the facility to report “The date and time identifying each period during which the continuous monitoring systems were inoperative except for zero and span checks and the nature of the system repairs or adjustments.” Rohm and Haas requests adding the terms “pressure” and “other required maintenance” such that the requirement would read as follows: “The date and time identifying each period during which the continuous pressure monitoring systems were inoperative except for zero and span checks or other required maintenance and the nature of the system repairs or adjustments.” The Agency disagrees with adding the term “other required maintenance” because it is important to include reporting of downtime in monitoring to understand system upsets, and adding the term “other required maintenance” would limit reporting to only periods of required maintenance, thus excluding downtime. However, the Agency does agree with the change to add the term “pressure” to specifically refer to the “continuous pressure monitoring system.” This

edit accurately reflects paragraph 2 of the operating conditions below and in the initial notice to only require pressure to be monitored.

Lastly, Rohm and Haas suggests adding “in this section” to Paragraph 7(d) so that it reads: “When the continuous pressure monitoring systems have not been inoperative, repaired, or adjusted, such information shall be stated in this section of the report.” The Agency interprets the comment to request that the information required in paragraph 7(d) be reported in the storage tank section of semiannual compliance reports for this facility. The Agency does not object to making this addition.

III. AMEL for the Storage Tank

The EPA is approving the AMEL request by Rohm and Haas. Based upon our review of the AMEL request, the Agency believes that, by complying with the operating conditions specified in the following paragraphs, the proposed new tank at the Rohm and Haas Chemicals LLC facility will achieve emission reductions at least equivalent to reduction in emissions required by NSPS subpart Kb, 40 CFR 60.112b:

- (1) No PRD on the storage tank, or on the railcar or tank truck, shall open during loading or as a result of diurnal temperature changes (breathing losses).
- (2) Both PRDs on the storage tank must be set to release at no less than 9 psig at all times. Any release from a PRD as indicated by pressure reading greater than 9 psig is an excess emissions event. To demonstrate that the PRD does not open, the tank vapor space pressure and the space between the rupture disk and PRD will be continuously monitored for pressure and recorded. If a release occurs, the tank must follow 40 CFR 63.165(d)(2).
- (3) Each of the PRDs and components of the vapor collection system on the tank must be monitored on a quarterly basis, using EPA Method 21. An instrument reading of 500 parts per million by volume or greater is an excess emissions event.
- (4) VAM must be transferred from either railcars or truck trailers via welded steel piping into the new bulk storage tank. The tank must be equipped with a welded steel vapor balance line that

returns displaced vinyl acetate vapors from the headspace within the tank to the railcar or tank truck during tank filling operations. The vapor balance line must be hard piped from the tank, crossing a pipe bridge, before terminating at the off-loading station. While there are a number of necessary flanged connections, flanged valves, and flexible coupling lines as part of the vapor balance line, the tank vapor balance line must not contain any PRDs or release points. Displaced vapors must be transferred to a vapor return fitting on the offloading bulk vehicle through a hose from the offloading station. Both the transfer hoses and the vapor balance return line must incorporate dry-disconnect fittings to prevent vapor discharge to the atmosphere when the line is not connected. Tank trucks and railcars must have a current certification in accordance with the DOT pressure test requirements of 49 CFR part 180 for tank trucks and 49 CFR 173.31 for railcars. Railcars or tank trucks that deliver VAM to a storage tank must be reloaded or cleaned at a facility that utilizes the control techniques specified in paragraph (4)(a) or (b).

(a) The railcar or tank truck must be connected to a closed-vent system with a control device that reduces inlet emissions of VAM by 95 percent by weight or greater.

(b) A vapor balancing system designed and operated to collect organic VAM vapor displaced from the tank truck or railcar during reloading must be used to route the collected HAP vapor to the storage tank from which the liquid being transferred originated.

(5) Rohm and Haas must submit to the Administrator a written certification that the reloading or cleaning facility meets the requirements of paragraph 4; and the requirements for closed vent system and control device specified at 40 CFR 63.119 through 63.123. The notification and reporting requirements at 40 CFR 63.122 do not apply to the owner or operator of the offsite cleaning or reloading facility.

(6) Recordkeeping requirements.

(a) The facility must keep a record of the equipment to be used and the procedures to be followed when unloading the railcar or tank truck and displacing vapors from the storage

tank to the transport vessel from which the liquid originates, as well as a record of all components of the PRDs, including PRVs and rupture discs.

(b) Records must be kept as long as the storage vessel is in operation.

(7) Reporting requirements. The facility must submit excess emissions and monitoring systems performance reports to the Administrator semiannually. All reports must be postmarked by the 30th day following the end of each 6-month period. Written reports of excess emissions must include the following information:

(a) The date and time of commencement and completion of each time period of excess emissions and the process operating time during the reporting period.

(b) The date and time identifying each period during which the continuous pressure monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(c) The report must include a list of the affected sources or equipment, an estimate of the volume of VAM emitted, and a description of the method used to estimate the emissions.

(d) When the continuous pressure monitoring systems have not been inoperative, repaired, or adjusted, such information shall be stated in this section of the report.

Date: July 13, 2021.

Panagiotis Tsirigotis,
Director,
Office of Air Quality Planning and Standards.

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